APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/657,661	09/08/2000	Loren G. Knutson	068520.0112	3017

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EXAMINER
SHRADER, LAWRENCE J

ART UNIT	PAPER NUMBER
2124	4

DATE MAILED: 04/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

Office Action Summary	Application No.	Applicant(s)
	09/657,661	KNUTSON, LOREN G.
	Examiner	Art Unit
	Lawrence Shrader	2124

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _08 September 2000_ .

2a) ☐ This action is **FINAL**.　　2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-20_ is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-20_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

　　If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All　b)☐ Some *　c)☐ None of:

　　1. ☐ Certified copies of the priority documents have been received.

　　2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

　　a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _3_ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:　.

U.S. Patent and Trademark Office
PTO-326 (Rev. 04-01)　　　　　　Office Action Summary　　　　　　Part of Paper No. 4

DETAILED ACTION

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 1 – 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claims 1, 4, 7, and 14, the term "different" in claims 1, 4, 7 and 14, all at line 3, is a relative term, which renders the claims indefinite. The term "different" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The examiner interprets "different" to mean distinct or separate from other function definitions.

Thus claims 2 – 3, 5 – 6, 8 – 13, and 15 – 20 are also rejected as they are dependent on rejected base claims.

Double Patenting

2.   The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3.   Claims 1, 4 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 11 of copending Application No. 09/658239 in view of Koppolu et al., U.S. Patent 6,446,135 (hereinafter referred to as Koppolu). The conflicting claims represent the same invention and differ by features that would have been obvious to one of ordinary skill in the art. Specifically:

In reference to claim 1, application No. 09/658239 recites a project definition including: a plurality of function portions defining an input port and an output port, a source portion identifying a data source and data destination, and binding information associating an input port with an output port, but fails to recite a separate application program wherein a function identifies a command. However, Koppolu discloses an application program having one of its functions identifying a command in a manner that affects data in the function (column 9, lines 30 – 40; column 14, lines 24 – 59). Therefore, it would have been obvious to one skilled in the art to combine the recitation of the '239 application with the teaching of Koppolu thus enhancing the '239 application so that a set of different functions might be selected, depending upon the input to the system, and affect data by running the function in the application. Although, the combination of application '239 and Koppolu is provided with a communications link limitation (application '239), the combination will function the same without the communication link in such a stand-alone configuration as referenced to claim 1.

In reference to claim 4, this claim merely recites a computer-readable medium corresponding to the features off claim 1, which has been rejected as set forth above.

4.   Claims 7, 14 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 11 of copending Application No. 09/658239 in view of Davis et al., U.S. Patent 6,002,876 (hereinafter referred to as Davis). The conflicting claims represent the same invention and differ by features that would have been obvious to one of ordinary skill in the art. Specifically:

In reference to claim 7, application No. 09/658239 recites a plurality of function portions defining an input port and an output port, a source portion identifying a data source and data destination, and binding information associating an input port with an output port, but fails to recite a step for modifying a set of function definitions. However, Davis teaches the modification of a set of functions (column 4, lines 15 – 61). Therefore, it would have been obvious to one skilled in the art to combine the recitation of the '239 application with the teaching of Davis to allow modification of the function set with additional functions, or updating existing functions, thus extending the utility of the project definition by providing an efficient means of upgrading the functions. Although, the combination of application '239 and Davis provides a communications link limitation (application '239), the combination will function the same without the communication link in such a stand-alone configuration as referenced to claim 7.

In reference to claim 14, this claim merely recites a computer-readable medium corresponding to the features off claim 7, which has been rejected as set forth above.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims1 - 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mukherjee, U.S. Patent 6,226,322 in view of Koppolu et al., U.S. Patent 6,446,135 (hereinafter referred to as Koppolu).

In reference to claim 1, Mukherjee discloses a method of providing a set of distinct predetermined function definitions comprising:

"A plurality... " Mukherjee teaches a method comprising a configuration arranged as a plurality of functions with inputs related to outputs (column 6, lines 11 – 25; Figure 1).

"A further portion... " Mukherjee teaches a portion of the method that identifies a data source and an associated output port as well as a destination portion identifying the input port through which data is supplied (Figure 1, columns 5 – 6).

"Binding information..." Information is processed and an input is associated with a respective output (Figure 1, columns 5 – 6).

Mukherjee does not teach identification of a separate application program and a command identified with one of the functions. However, Koppolu discloses an application program having one of its functions identifying a command in a manner that affects data in the function (column 9, lines 30 – 40; column 14, lines 24 – 59).

Therefore, it would have been obvious to on skilled in the art at the time the invention was made to combine such a command for identifying a separate function of an application as taught by Koppolu with the method of defining a plurality of functions with related inputs and outputs as taught by Mukherjee further modified with the identification of a function with an application and a command in the function as taught by Koppolu, thus enhancing the Mukherjee teaching so that a set of different functions might be selected, depending upon the input to the system, and affect data by running the function in the application.

In reference to claim 2, the rejection of claim 1 is incorporated, and Mukherjee additionally teaches that the image data may be processed (column 5, lines 30 – 33).

In reference to claim 3, the rejection of claim 1 is incorporated. Mukherjee discloses a method defining a plurality of functions with related inputs and outputs that operate concurrently (column 5 line 24 – 40, column 6, lines 11 –1 5).

In reference to claims 4 – 6 (computer-readable medium), they are rejected for the same reasons put forth in the rejection of claims 1 – 3 (method) respectively.

7.   Claims 7 - 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mukherjee,

U.S. Patent 6,226,322 in view of Davis et al., U.S. Patent 6,002,876 (hereinafter referred to as

Davis).

In reference to claim 7, Mukherjee discloses a method of providing a set of

predetermined function definitions comprising:

"A plurality..." Mukherjee teaches a method comprising a configuration arranged as a

plurality of functions with inputs related to outputs (column 6, lines 11 – 25; Figure 1).

"A further portion..." Mukherjee teaches a portion of the method that identifies a data

source and an associated output port as well as a destination portion identifying the input port

through which data is supplied (Figure 1, columns 5 – 6).

"Binding information..." Information is processed and an input is associated with a

respective output (Figure 1, columns 5 – 6).

Mukherjee does not teach the modification of the function set. Davis teaches the

modification of a set of functions (column 4, lines 15 – 61). Therefore, it would have been

obvious to one skilled in the art at the time the invention was made to combine the method of

defining a plurality of functions with related inputs and outputs as taught by Mukherjee with the

teaching of Davis by allowing modification of the function set with additional functions, or

updating existing functions, thus extending the utility of the project definition by providing an

efficient means of upgrading the functions.

In reference to claims 8 - 10, the rejection of claim 7 is incorporated. Mukherjee

discloses a plurality of functions with related inputs and outputs, but does not teach the

modification of functions. Davis teaches modification of a predetermined function (claim 8),

and replacement of predetermined functions with a custom functions (claims 9 – 10). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to combine the method of defining a plurality of functions with related inputs and outputs as taught by Mukherjee with the teaching of Davis by allowing modification of the function set with additional functions, or updating existing functions, thus extending the utility of the project definition by providing an efficient means of upgrading the functions.

In reference to claim 11, the rejection to claim 8 is incorporated. Mukherjee discloses a plurality of functions with related inputs and outputs, but does not teach the modification of functions, compiling the modified code, and including the object code into the set of functions. Davis further teaches modification, compilation and inclusion of resulting object code into the function set (column 4, lines 15 – 50) in a development environment (column 5, lines 1 – 3). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to combine the method of defining a plurality of functions with related inputs and outputs as taught by Mukherjee with the teaching of Davis by allowing modification of the function set with additional functions, compiling the modified code and including the resultant object code in the function set to provide an efficient way of recompiling individual functions without recompiling the entire routine.

8.　　　Claims 12 - 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mukherjee, U.S. Patent 6,226,322 in view of Davis et al., U.S. Patent 6,002,876 (hereinafter referred to as Davis) as pertaining to claim 7, and further in view of Sleep et al., U.S. Patent 6,317,648 (hereinafter referred to as Sleep).

Mukherjee discloses a plurality of functions with related inputs and outputs, but

Mukherjee does not teach the use of an off-line development environment (claim 12) that

includes Visual Basic (claim 13). Davis teaches a development environment, but not an off-line

environment with Visual Basic. Sleep teaches an off-line development environment using

Visual Basic (column 32, lines 38 – 60). Therefore, it would have been obvious to one skilled in

the art at the time the invention was made to combine the method of defining a plurality of

functions with related inputs and outputs as taught by Mukherjee with the teaching of Davis by

allowing modification of the function set with additional functions, compiling the modified code

and including the resultant object code in the function set, and modified by the teaching of Sleep

by providing on off-line development environment using Visual Basic, which would provide a

well known tool to modify the system in an environment that eliminates possible errors made on

an on-line system..

In reference to claims 14 – 20 (computer-readable medium), they are rejected for the

same reasons put forth in the rejection of claims 7 – 13 (method) respectively.

Conclusion

9.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure:

U.S. Patent 6,532,218 to Shaffer et al., switching video graphics and data.

U.S Patent 6,386,451 to Sehr, selection and execution of a plurality of operational

functions.

U.S. Patent 6,374,353 to Settsu et al., selection and execution of a plurality of functional modules.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Shrader whose telephone number is (703) 305-8046. The examiner can normally be reached on M-F 08:00-16:30.
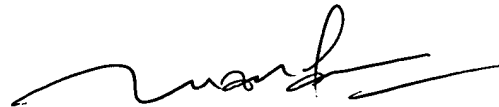
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703) 305-9662. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Lawrence Shrader
Examiner
Art Unit 2124

TUAN Q. DAM
PRIMARY EXAMINER

March 27, 2003